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10/688,988	10/21/2003	Andrew Sean Gordon Daly		3985

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EXAMINER

ALI, SHUMAYA B

ART UNIT	PAPER NUMBER
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3771

MAIL DATE	DELIVERY MODE
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12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/688,988

Applicant(s)

DALY, ANDREW SEAN GORDON

Examiner

Shumaya B. Ali

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/16/07 has been entered.

Status of Claims

In response to the office action mailed on 5/16/07, Applicant has amended claims 21, 23-25, entered new claims 26-31, and cancelled claims 13-20. Currently claims 21-31 is pending in the instant application.

Statutory Declaration

Declaration filed on 4/11/06 is acknowledged by the Examiner.

Specification

The disclosure is objected to because of the following informalities: claim 21 requires two connectors (4) and (6, 12, 61, 71, 115), which are the same structure; however, different numbers are used for different embodiment. Specification lacks detailed description of connectors being used in a "single" invention as claimed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to instant claim 21, which requires “a connection means (4)” and “an essentially inelastic connector (6,12,61,71,115)” connected to one or more point inside of each of said cannon bone embracing collar (2) and said pastern bone embracing collar (3). It appears that Applicant is combining limitation from embodiment of figures 1-4, which require a connection means (4) and embodiment of figures 5,7,9,24, and 25, which require an essentially inelastic connector for high tensile strength (6,12,61,71,115). Claim requires two distinct connections, however, Examiner believes they are the same structure used for different embodiment. Thus, the new matter issue is raised on two grounds: disclosure lacking (1) teachings of combining the distinct connectors as claimed in a single invention, and (2) support for claimed recitation of “one or more point inside of each of said cannon bone embracing collar (2) and said pastern bone embracing collar (3)”.

Claims 21-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to instant claim 21, specification lacks description of how two separate connectors: a connection means (4) and an essentially inelastic connector of high tensile strength

(6, 12, 61, 71, 115) connected to one or more points on the inside of each of said cannon bone embracing collar (2) and said pastern bone embracing collar (3) are used in a single tendon and ligament support. Specification describes the two connectors being the same structure designated as different numbers for different embodiments, for example, the connection means (4) is used in the embodiment of figures 1-4 and an essentially inelastic connector is used in the embodiment of figures 5, 7, 9, 24, and 25. Thus, Examiner believes the two connectors are same structure, however, claimed invention requires two separate structures in a single invention, however such combination of structures can be used for a single invention is not described in the specification. Furthermore, specification lacks the support for an essentially inelastic connector of high tensile strength (6, 12, 61, 71, 115) connected to one or more points on the **inside** of each of said cannon bone embracing collar (2) and said pastern bone embracing collar (3). Figures 5, 7, 9, 24, and 25 depict the inelastic connector are connected to one or more point on the **outside** of the cannon and pastern bone embracing collars. **With respect to instant claim 31**, which requires both means (91, 104) on the inside of the support. It appears element 91 is used to show channel in the embodiment of figure 20 and element 104 is used to show different channel in the embodiment of figure 23. Specification is not clear as to whether both means (91 and 104) can be sued in a single invention. For both instances, structures from species of different embodiments are being claimed in a single invention, which however is not describe in the specification such to enable one of ordinary skill in the art to make and/use the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 30, lines 4-7 the recitation of "means (91, 104) on the inside of the support arranged to allow air to pass from the intake entrance over and adjacent to the horse's leg" is indefinite. Although element 91 and 104 are air channels, Examiner considers different structure is associated with claimed "means". It is not clear how air channels can be arranged inside the collar when means for securing the collars (as recited in claim 1) is tightened such that it provides no air space is created between the collar and leg. A different structure inside the collar may be required to arrange the inside of collar such that it maintains an air passage opening from the intake entrance over and adjacent to the horse's leg. Should the "means" render arrangement of panels inside the collar?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clegg US 901,592 in view of Borendt et al. US 222,290 and in view of Joutras US 5,788,618.

As to claim 21, Clegg in his specification and drawings (see figures 1-3) discloses a tendon and ligament support for a horse's fetlock joint having an anterior side and a posterior

side comprising a cannon bone-embracing collar (see "a" on cannon bone in figure 1), a pastern bone-embracing collar (see "a" on pastern bone in figure 1), and means for securing the collars (with fastener on each collar, see figures 1 and 2) so as to embrace the horse's leg respectively above and below the fetlock joint.

Clegg however lacks a connection means for providing articulation and separation between the two collars. However, Borendt teaches claimed connection means (see fig.1, A, B, b, and a). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clegg in order to provide a connection means for the purposes of avoiding overexertion and straining as taught by Borendt (see col.1, lines 25-28 of Borendt). Thus the connection means provided between the two collars as taught by Borendt (see fig.1) is capable of providing limited ligament and/or tendon elongation under load. Although Borendt is silent on the connector being essentially inelastic, however, it would have been obvious to one of ordinary skill in the art to consider Borendt's connector is "essentially" inelastic of high tensile strength in order to resist downward forces exerted by the fetlock joint to minimize over exertion and straining of the joint. Borendt further teaches the connection is connected to one or more points on the outside (for examination purposes limitation "inside" is read as --outside--) of each of said cannon bone- embracing collar and said pastern-bone-embracing collar (see fig.1) arranged across the posterior side of the fetlock joint. Such arrangement of the inelastic connector is capable of limiting fetlock joint movement within a predetermined range of fetlock joint rotation (see col.1, lines 25-28) and adapted to support and effectively cup (via "A") the posterior side of the fetlock joint as the said collars pivot apart (see fig.1).

Clegg discloses a pivot arrangement (see fig.2, b, c, d, h, and f) for providing articulation and separation between the two collars, however lacks a resistance-exerting pivot to exert a resistance to fetlock joint movement over said predetermined range of pivot rotation. However, Joutras teaches resistance -exerting pivot used with a brace (see figures 1 and 2) to control the resistance needed by limb to move the brace for limited movement about the knee (see col.8, lines 5-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clegg in order to provide a resistant-exerting pivot and by doing so would have controlled resistance needed by the horses' leg to move the tendon and ligament support for limited movement about the fetlock joint as taught by Joutras.

As to claim 23, Joutras teaches a control assembly that includes force resistance member, calibration dial, which is settable to different amount of resistance, and lever assembly that are movable with respect to each other only with the programmed amount of force so that force against the knee joint can be controlled (see col.8, lines 52-60). Thus, the calibration dial and the control system can be adjusted/programmed so that the resistance-exerting pivot arrangement is arranged to exert a substantially constant resistance to joint movement as the pivot arrangement rotates under downward pressure.

As to claim 24, Joutras' resistance-exerting pivot arrangement further can be programmed (see col.8, lines 52-60) to exerting pivot arrangement is arranged to exert no resistance to joint movement unless the pivot arrangement rotates beyond said predetermined range of pivot rotation.

As to claim 25, Joutras teaches a programmable resistance-exerting pivot (see col.8, lines 52-60) which can be programmed to make the pivot arrangement to be locked in position so as to exert total resistance to joint movement in both flexion and extension when so required.

As to claim 26, Joutras teaches a programmable resistance-exerting pivot (see col.8, lines 52-60) which can be programmed to exert progressively increasing resistance to joint movement as the pivot arrangement rotates under downward pressure.

As to claim 27, Borendt teaches the connection means includes adjustment means (connection means can be adjusted by tightening or loosening the buckle seen on strap B) adapted to vary said predetermined range of pivot rotation.

As to claim 28, Joutras teaches a programmable resistance-exerting pivot (see col.8, lines 52-60) which can be programmed to so that the pivot arrangement is adapted to accommodate limited lateral joint movement.

As to claim 29, Clegg discloses the pivot arrangement includes one or more hinges (see one hinge "h" shown in fig.2).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clegg US 901,592 in view of Borendt et al. US 222,290 and in view of Joutras US 5,788,618 and in view of Detty US 5,871,458.

As to claim 22, Clegg lacks at least one of said collars further comprises a panel constructed from shock- absorbent composite materials. However, Detty in an equine ankle brace system teaches use of shock absorbent panel (see fig.24A, col.1, lines 10-20, and col.4, lines 10-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Clegg in order to provide a shock absorbent panel for the purposes of preventing injury to horses' ankle and protecting an injured ankle from further injury which could result from impact to the ankle as taught by Detty.

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clegg US 901,592 in view of Borendt et al. US 222,290 and in view of Joutras US 5,788,618 and in view of Bard US 6,553,994 B2.

As to claims 30 and 31, Clegg lacks an air intake entrance facing to the front of the support. However, Bard in an orthopedic support teaches air holes (fig.2, 28) facing front of the support (see figures 1-3, since figure 1 is showing neck brace, holes under liner 26 facing exterior environment is considered front of the support and back of the support is in contact with the neck). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clegg in order to provide air intake entrance facing to the front of the support for the purposes of allow venting of the support as taught by Bard (see col.2, lines 38-45). Clegg teaches adjustable securing means (see buckles on collars "a" in fig.2), which can be adjusted (loosen) to provide ventilation inside the collar. Thus Clegg teaches means (air channel formed by adjusting collar diameter) on the inside of the support. Clegg as modified by Bard inherently capable of allowing air to pass from the intake entrances over and adjacent to the horse's leg from one part of the support to another, during forward motion of the horse.

As to claim 31, Clegg teaches means (air space crated between the collars and leg by adjusting collar size) to compress and channel air, during forward motion of the horse (cold air

trapped in small space between the collars and leg would inherently compress air and force air to channel out of the collar).

Response to Arguments

Applicant's arguments with respect to claims 21-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-W-F 8:30am-5:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 3771
12/5/07


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